

## Claims

We claim:

1. A dumbbell clamp connectable with a cable for use in suspending a dumbbell from the cable, the clamp comprising:  
two spaced-apart plates being connected to one another and each plate comprising a notch for receiving a grip of the dumbbell, at least one of the plates connectable to the cable by a cable attachment means; and  
a locking means disposed on at least one of said two spaced-apart plates for locking said grip of said dumbbell in said notch.
2. The dumbbell clamp of claim 1 comprising a slot intersecting said notch disposed on each of said two spaced-apart plates and wherein said locking means is a locking bar slidably disposed within said slot.
3. The dumbbell clamp of claim 2 comprising a biasing means for biasing said locking bar toward said notch.
4. The dumbbell claim of claim 3 comprising a handswitch disposed between said two spaced-apart plates.
5. A dumbbell clamp for use with a self-spotting apparatus comprising an engagement element for selectably engaging a cable attached to said dumbbell clamp to a supporting frame, said dumbbell clamp comprising:  
a clamp frame comprising a dumbbell attachment means for attaching a grip of a dumbbell to said clamp frame;  
a grip sensor disposed on said clamp frame; and  
a connector attached to said clamp frame for operably connecting said grip sensor to said engagement element of said self-spotting apparatus.

6. The dumbbell clamp of claim 5 wherein said dumbbell attachment means comprises a grip notch in said frame to retain said grip of said dumbbell.
7. A dumbbell clamp for use with fitness equipment comprising:  
a frame comprising two spaced-apart plates, each of said two spaced-apart plates comprising a grip notch comprising a first end open to an outside edge of said plate and a second end comprising dimensions for retaining a grip of a dumbbell; and  
a cable attachment element disposed on said frame.
8. The dumbbell clamp of claim 7 wherein said second end of said grip notch of each of said two spaced-apart plates is disposed lower than said first end of said grip notch when said cable attachment element is spaced vertically above said second end of said grip notch.
9. The dumbbell clamp of claim 8 comprising a releasable lock disposed on said each of said two spaced-apart plates for locking said grip in said grip notch.
10. The dumbbell clamp of claim 9 wherein said releasable lock comprises a lock bar slidably engageable with said grip notch of said each of said two spaced-apart plates.
11. The dumbbell claim of claim 7 comprising a grip sensor disposed on said frame.